REMARKS

The Office Action of February 9, 2006, has been carefully reviewed. Claims 46, 47, 53 and 55-57 are pending in the present application.

In the Office Action, claims 46, 47, 53, and 55-57 stand rejected under 35 U.S.C. 103(a) as being obvious over Bock et al. (US 4,831,092). This rejection is respectfully traversed.

Applicants thank Examiner Hug for extending the courtesy of a telephonic interview with Applicants' representative on July 25, 2006. Applicants' representative discussed distinctions between the claimed invention and Bock, and contended that the rejection based on Bock is analogous to *In re Baird* and that Bock teaches away from the present invention. The Summary of the Interview and the issues raised by Applicants' representative are incorporated in the detailed remarks below.

The present application relates to a cationic vinyl addition polymer. The cationic vinyl addition polymer according to the present invention may be utilized as an additive in paper making, particularly for use as a drainage (e.g. dewatering) aid. For instance, Example 1 discloses a polymer P4 prepared from acrylamide, methacryloxaminopropyl trimethylammonium chloride and N-isopropyl acrylamide. In Example 5, polymer P4 is tested as a dewatering aid, showing better dewatering than the polymer Reference 2 which was prepared from acrylamide and acryloxyethyl trimethylammonium chloride and which is commonly used as a dewatering aid.

Bock relates to a polymer for use in the clean up of waste water, especially waste water containing oil. More specifically, Bock relates to a polymer comprising a non-ionic monomer, a cationic monomer and (meth)acrylamide.

The Office Action contends that the presently claimed invention is obvious over the terpolymer disclosed in col. 7 of Bock. The Office Action further contends that the monomer on the left hand side of the terpolymer is a non-ionic hydrophobic monomer

without an aromatic group, which corresponds to (a) of claim 46. Specifically, it is the contention of the Office Action that the (left hand side) monomer is an acrylamide monomer with functional groups R_1 and R_2 attached to N, where R_1 can be C_4 and R_2 can be C_3, and that although the claimed invention has only a C_3 group attached to the N, the C_3 group is an obvious variant of the disclosed C_4 group for R_1. Applicants respectfully disagree.

A review of the disclosure of Bock reveals that in the formula in column 7, Bock discloses and teaches as follows, regarding the first monomer having the value x (i.e, the left hand side monomer):

> "*R_1 is preferably a **C_4 to C_{22}** linear or branched alky, alkylcycloalkyl, or alkylaryl group, **more preferably C_6 to C_{22}**, and **most preferably C_6 to C_{18}**; R_2 is the same or different group as R_1, or hydrogen or C_1 to C_3 linear or branched alkyl group; R_3 is hydrogen or methyl*" (emphasis added).

It is respectfully submitted that the present case is very similar to *In re Baird*, 29 USPQ2d 1550, 1552 (Fed Cir. 1994), and that *In re Baird* is controlling law. *In re Baird* involved a prior art reference that disclosed a generic formula which includes the specific compound claimed by Baird. The Examiner contended that the claim was obvious over the reference since the claimed compound was defined when specific variables of the generic formula were selected. The Board upheld the rejection over Baird's argument that there was no motivation for one skilled in the art from the reference to select the claimed compound. The Federal Circuit agreed with Baird and reversed, holding that a disclosure of a vast number of possibilities and specific disclosures of "preferred" or "optimum" embodiments that are different from and more complex than the claimed compound, would teach one skilled in the art away from that claimed compound.

In the instant case, Bock teaches that the R_1 group should more preferably have from 6 to 22 carbon atoms and most preferably from 6 to 18 carbon atoms. Moreover, in all the examples the monomer includes a C_8 or C_{12} group. Applicants respectfully submit that there is no motivation or suggestion in Bock for selecting a C_3 group for R_1, H for R_2 and methyl for R_3, as presently claimed. Instead, Bock **teaches away from the presently claimed invention** and teaches and fairly suggests that R_1 should be a more complex structure having at least a C_4 and more preferably a C_6 or higher group, by teaching that the most preferred range for R_1 is 6 to 18 carbon atoms and including only C_8 and C_{12} groups in the examples. *In re Baird*, 29 USPQ2d at 1552.

The Office Action points out that R_1 is not limited and that R_1 is merely preferably C_4-C_{30}. Assuming *arguendo* that this interpretation (that R_1 is not limited) is correct, it would mean that R_1 could encompass an infinite number of possibilities, including groups having in excess of 30 carbon atoms or even aromatic groups. It still does not take away from the fact that Bock teaches away from the claimed compound. The Office Action also points out that although Bock does not disclose R_1 as being a C_3, R_2 can be a C_3. However, in such a case (where R_2 is C_3) the result would be that there would be both a C_3 group and a second group of C_4 or higher attached to the N.

It is respectfully submitted that absent hindsight reliance on Applicants' disclosure, Bock cannot be reasonably construed as teaching or fairly suggesting the claimed invention.

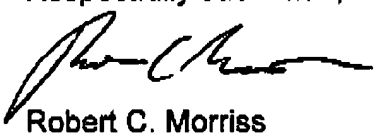
Regarding claims 56 and 57, group B of the cationic monomer for each claim is identified as being a hydroxy propylene group. However, Bock only discloses structures of a cationic monomer (the right hand side monomer in col. 7) where the equivalent of group B is a linear un-substituted C_1-C_6 alkyl group. See col. 7, lines 56-58 of Bock. Accordingly, it is respectfully submitted that in addition to teaching away from the non-

ionic monomer as discussed above, Bock fails to disclose or suggest the claimed cationic monomer, as set forth in claims 56 and 57.

Therefore, for the reasons set forth above, it is respectfully requested that the rejections of claims 46, 47, 53 and 55-57 under 35 U.S.C. 103(a) as being unpatentable over Bock be withdrawn.

Accordingly, Applicants respectfully submit that the application, including claims 46, 47, 53 and 55-57, is in proper form for allowance, which action is earnestly solicited. If resolution of any remaining issue is required prior to allowance of the application, it is respectfully requested that the Examiner contact Applicants' undersigned attorney at the telephone number provided below.

Respectfully submitted,



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